FOREST INSECT SURVEY
MINIDOKA NATIONAL FOREST
1940

by
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INTRODUCTION

In 1930 a potentially serious and persistent infestation of the mountain pine beetle was present within the lodgepole pine stands of the Cassia Division of the Minidoka National Forest. Although during subsequent years an effort was made to control this infestation, in 1934 it was apparent that the work was not being projected on a scale of sufficient magnitude to accomplish that objective. The failure of this work was believed to have resulted from inadequate surveys which failed to indicate the location and extent of the infestation. To correct this condition a thorough survey of all lodgepole stands within the Cassia Division was planned for the fall of 1935. Data obtained from this survey showed that a serious infestation was present in practically all lodgepole pine areas. Control measures were instituted in the fall of 1935 and the spring of 1936, and approximately 21,000 infested trees were treated.

A resurvey of the treated areas in the fall of 1936 indicated a 92 percent reduction in the severity of the 1936 infestation, or 1,626 infested trees, which were treated in 1937. This concentrated action successfully reduced what was considered as a serious situation, and during subsequent years no special survey or control operations have been necessary. The attitude of the forest officers of this forest toward the forest insect problem has contributed materially towards maintaining this satisfactory condition, for plans were made for the subsequent treatment of all infested trees observed during the course of their field duties. Such consideration to single and isolated groups of infested trees aids in preventing the development of centers of infestation from which more serious outbreaks occur.

THE 1940 SURVEY

Realizing that so-called normal infestations of the mountain pine beetle can and do give rise to destructive outbreaks in a very few years, it was considered advisable to cover again the Cassia Division of the Minidoka with a fairly intensive survey. This project was conducted by the Bureau of Entomology and Plant Quarantine during September. Data were obtained by three men experienced in forest insect surveys, who were directed by James C. Evenden, Forest Insect Laboratory, Coeur d'Alene, Idaho.

This project was instituted on the 3rd of September and completed on the 21st. A total of 62 man-days were used in obtaining data from 1,224 sample acres. Timber survey maps were used to show the location and acreage of the timber patches within each compartment. With this information available the work was directed so as to obtain representative samples from each area.

The Cassia Division is a rather difficult forest area to survey. The lodgepole pine occurs in patches which vary in size from 2 to 150 acres. These patches are scattered throughout a large acreage, which entails a lot of nonproductive travel time. However the terrain is not unusually rough and there are numerous roads which make most of the areas readily accessible. Although all of the many patches of timber were not sampled, it is believed that the coverage obtained was satisfactory and that the data depict existing conditions.

A summary of the data obtained from each compartment are given in the following tabulations:

BURLEY-OAKLEY WORKING CIRCLE

Harrington Compartment

Number of lodgepole patches	3
Total acres	145
Number of patches sampled	3
Acres of sample strip	16.9
Percent of total acreage covered by sample	11.65
Number of 1940-attacked trees on strip	0

The mature lodgepole pine stands of this area occur in mixture with alpine fir, with some pure border types of the latter species. As a few (5) 1939 attacks of the mountain pine beetle were recorded during the survey, it is entirely possible that there may be a few trees harboring 1940 broods at this time. Regardless of this possibility, the situation is not severe or it would have been revealed by a survey of this intensity.

Coal Pit Compartment

Number of lodgepole patches	15
Total acres	553
Number of patches sampled	13
Acres of sample strip	58.5
Percent of total acreage covered by sample	10.58
Number of 1940-attacked trees on strip	3
Acreage of infested area (Patch D)	28
Acres of sample strip in infested patch	7
Infested trees per acre of strip	.428
Total infested trees in patch	12

The small amount of mature lodgepole in this compartment is associated with scattered areas of reproduction.

Porcupines have been active and a large number of trees have been killed and others badly injured by them. The three 1940 and eighteen 1939 attacks of the mountain pine beetle recorded during the survey were in trees that had been injured by porcupines.

Basin Compartment

Number of lodgepole patches	22
Total acres	420
Number of patches sampled	13
Acres of sample strip	41
Percent of total acreage covered by sample	9.76
Number of 1940-attacked trees on strip	0

There are a few fairly large-sized areas of mature pine in this compartment, with the remainder occurring in small patches. Porcupines are active and a number of trees seem to have died from this injury alone.

Sawmill Compartment

Number of lodgepole patches ----------------------	10
Total acres --	489
Number of patches sampled -----------------------	7
Acres of sample strip ----------------------------	71
Percent of total acreage covered by sample -----	14.51
Number of 1940-attacked trees on strip ---------	1
Acreage of infested area (Patch B) -------------	138
Acres of sample strip in infested patch --------	34
Infested trees per acre of strip ---------------	.029
Total infested trees in patch ------------------	4

This compartment is fairly heavily stocked with stands of immature and mature lodgepole pine growing in association with each other. Although there have been some past losses, only one 1940 and four 1939 attacks were recorded. There is considerable porcupine damage, with some trees being killed and others severely weakened.

Although only 7 of the 10 patches were sampled, the data obtained are considered as depicting the status of conditions within the area.

Eckland Compartment

Number of lodgepole patches ----------------------	5
Total acres --	210
Number of patches sampled -----------------------	5
Acres of sample strip ----------------------------	23.3
Percent of total acreage covered by sample ----	11.09
Number of 1940-attacked trees on strip --------	0

Although small in acreage, there is in this compartment considerable lodgepole pine, which occurs in both pure stands and in mixture with alpine fir. Most of the lodgepole is immature, although there are a few small areas of mature trees. No successful 1940 attacks were recorded; however, a few pitched-out attacks were observed.

Porcupines are killing and weakening many trees.

1st Fork and 2nd Fork Compartment

Number of lodgepole patches	17*
Total acres	706
Number of patches sampled	10
Acres of sample strip	55
Percent of total acreage covered by sample	7.79
Number of 1940-attacked trees on strip	0

* Three of these patches (D, I, and O) are listed as alpine fir (92 acres).

Most of the timber in this area is mature and growing in mixture with alpine fir. Although no 1940 attacks were recorded, there may be a few scattered infested trees.

Lower 3rd Compartment

Number of lodgepole patches	6*
Total acres	289
Number of patches sampled	4
Acres of sample strip	17.1
Percent of total acreage covered by sample	5.91
Number of 1940-attacked trees on strip	0

* One patch (C) of 138 acres listed as alpine fir.

Approximately half of the lodgepole in this compartment can be considered as mature and occurring in mixture with alpine fir. There are some rather large patches of lodgepole pine and a few areas of alpine fir. The terrain is rough, with a number of rather steep canyons.

A few pitched-out attacks were recorded but no successful 1940 attacks.

Upper 3rd Compartment

Number of lodgepole patches	16
Total acres	909
Number of patches sampled	11
Acres of sample strip	62.9
Percent of total acreage covered by sample	6.91
Number of 1940-attacked trees on strip	0

There is not a great deal of lodgepole pine in this small compartment, and most of the stands are immature. There is considerable alpine fir that occurs in pure stands and in mixture with lodgepole pine.

Only 11 of the 16 patches of lodgepole pine were sampled; however, the conditions encountered did not warrant a more intensive coverage.

Trapper Compartment

Number of lodgepole patches	18*
Total acres	720
Number of patches sampled	9
Acres of sample strip	57.4
Percent of total acreage covered by sample	7.97
Number of 1940-attacked trees on strip	7
Acreage of infested area (Patch B)	40
Acres of sample strip in infested patch	10
Infested trees per acre of strip	.7
Total infested trees in patch	28

* In addition to these 18 patches of lodgepole there are four patches of alpine fir (F, K, L and P) with an acreage of 193 acres. Five acres of strip were run in these patches.

The terrain of this compartment is rough and steep, but many roads make the timber stands quite accessible. Only 9 of the 18 patches of lodgepole pine were sampled; however, the status of conditions encountered in this area did not seem to warrant a more intensive coverage.

Although some few years ago there were some rather severe losses within this area, only a light 1940 infestation was recorded, which is apparently confined to patch B, an area of some 40 acres. The infested trees were large and apparently overmature.

Badger Gulch Compartment

Number of lodgepole patches	11*
Total acres	406
Number of patches sampled	7
Acres of sample strip	37.5
Percent of total acreage covered by sample	9.23
Number of 1940-attacked trees on strip	0

* In addition to these areas of lodgepole there are four patches (C, J, M and D) of alpine fir comprising some 155 acres. Twenty-three acres of sample strip were run in these areas.

Although the terrain of this compartment is quite rough with numerous deep draws, the timber stands are made accessible by roads. The lodgepole pine is small and immature but occurs in rather large patches. There are a few areas of pure alpine fir; however considerable is found in association with lodgepole. No 1940 attacks were recorded in this area, and the character of the timber within the unsampled patches did not warrant additional coverage.

Considerable damage is being done to lodgepole pine by porcupine and to aspen by beavers.

Cottonwood Compartment

Number of lodgepole patches	22*
Total acres	740
Number of patches sampled	9
Acres of sample strip	36.1
Percent of total acreage covered by sample	4.87
Number of 1940-attacked trees on strip	17
Acreage of infested area (Patch B)	104
Acres of sample strip in infested patch	20.3
Infested trees per acre of strip	.83
Total infested trees in patch	86

* In addition to these 22 patches of lodgepole pine there is one patch of 23 acres that is recorded as alpine fir.

The lodgepole pine stands of this area are mostly small and immature, with some mature trees distributed throughout the patches in the bottom of draws and on the better sites.

The sample strip run in patch B recorded 17 new attacks, which makes a total of 86 for the area. Although the survey did not reveal any further infestation, it is possible that there are a few trees within the patches adjacent to B. This infestation was recorded as being in patch B in the 1st Fork and 2nd Fork Compartment. However in studying the data submitted it is evident that the boundaries between these two units were not observed and that the present listing is correct. Due to the fairly large percent of patch B covered by this survey (19.5%), it is possible that the total number of trees will prove to be somewhat high. This condition results from strips being run in the most susceptible portions of the timber stand in question.

Porcupine work is evident throughout all lodgepole pine patches.

TWIN FALLS WORKING CIRCLE

Goose Creek-Rock Creek Compartment

Number of lodgepole patches	37*
Total acres	1,363
Number of patches sampled	27
Acres of sample strip	214.8
Percent of total acreage covered by sample	15.75
Number of 1940-attacked trees on strip	0

* There are six patches of alpine fir (B, C. W, Y, Co, and Go) containing some 220 acres in addition to the patches of lodgepole.

There is considerable lodgepole pine in this compartment and although most of the stand is immature, there are a number of patches of mature timber. Some scattered 1939 attacks were recorded but none of the present season. Considerable damage to lodgepole is resulting from porcupines.

Lower Rock Creek Compartment

Number of lodgepole patches	7
Total acres	263
Number of patches sampled	6
Acres of sample strip	67.1
Percent of total acreage covered by sample	25.51
Number of 1940-attacked trees on strip	13
Acreage of infested area (Patch A and C)	199
Acres of sample strip in infested patch	45.2
Infested trees per acre of strip	.29
Total infested trees in patch	57

This compartment contains the most serious infestation encountered during the survey. The 13 infested trees recorded are concentrated in patches A and C, although it is entirely possible that there are a few scattered infested trees within adjacent areas. The infested trees are large and mature, with many of them showing a previous injury by porcupines. An old kill, possibly 1935 or 1936, has occurred in Wahlstrom Hollow.

McMullen Compartment

Number of lodgepole patches	2
Total acres	40
Number of patches sampled	2
Acres of sample strip	7
Percent of total acreage covered by sample	17.5
Number of 1940-attacked trees on strip	0

The lodgepole pine stands of this area are widely scattered in a number of small patches grouped under A and B. No mountain pine beetle work was recorded for 1939 or 1940. Lodgepole trees are small and scattered throughout patches of reproduction.

Shoshone Compartment

Number of lodgepole patches	34
Total acres	831
Number of patches sampled	25
Acres of sample strip	186.6
Percent of total acreage covered by sample	22.45
Number of 1940-attacked trees on strip	1
Acreage of infested area (Patch A)	80
Acres of sample strip in infested patch	19.1
Infested trees per acre of strip	.052
Total infested trees in patch	4

The lodgepole pine stands of this compartment occur in fair-sized patches. Trees are small but apparently in a healthy condition.

Only one successful 1940 attack of the mountain pine beetle was recorded, although there were a few that had been pitched out. Several trees were recorded that had been killed by insects in 1939.

Only 25 of the 34 patches of lodgepole pine were included in the survey; however, the present status of conditions did not warrant a more intensive coverage. A number of patches of timber not shown on the type map were included in the survey.

NEVADA WORKING CIRCLE

Lower Goose Creek Compartment

Number of lodgepole patches	18
Total acres	462
Number of patches sampled	9
Acres of sample strip	102.4
Percent of total acreage covered by sample	22.16
Number of 1940-attacked trees on strip	0

This area is quite rough, with many springs and waterways. Timber stands are nearly all immature and appear to be in a healthy condition. One 1939 attack was recorded, with porcupines killing the tops of many small trees.

Lower Trout Creek Compartment

Number of lodgepole patches	3*
Total acres	137
Number of patches sampled	3
Acres of sample strip	16
Percent of total acreage covered by sample	11.69
Number of 1940-attacked trees on strip	0

*This includes an extra patch of timber not shown on type map.

The terrain of this compartment is quite rough, with a number of waterways. Timber is small and immature, but apparently in a healthy condition. Alpine fir occurs in large patches and in association with pine. Two 1939 attacks of the mountain pine beetle were recorded.

Beaver Dam Compartment

Number of lodgepole patches	4
Total acres	80
Number of patches sampled	2
Acres of sample strip	6
Percent of total acreage covered by sample	7.5
Number of 1940-attacked trees on strip	0

In this area there is only a small amount of lodgepole pine, which occurs in a few patches near Chalk Springs. No trees were recorded that had been killed by insects during the past few years, although some porcupine work can be seen.

Big Horse Creek Compartment

Number of lodgepole patches	4
Total acres	433
Number of patches sampled	4
Acres of sample strip	22
Percent of total acreage covered by sample	5.08
Number of 1940-attacked trees on strip	0

There is not a great deal of pine in this compartment, and approximately half of the stand can be considered as immature. Timber occurs in small scattered patches.

COST ANALYSIS

Salaries	$261.50
Subsistence and lodging	65.67
Transportation	30.85
	$358.02

Man-days	62
Acres of sample strip	1,224
Total lodgepole pine acreage	9,196
Percent of total acreage sampled	13.3
Acres of sample strip per man-day	19.7
Cost per acre of sample strip	$0.292
Cost of survey per acre of lodgepole pine stand	$0.038

The cost of this operation may seem a trifle high, but it includes transportation and subsistence of crew from Coeur d'Alene, Idaho, as well as four days accumulated leave.

CONCLUSIONS

Although an infestation of the mountain pine beetle exists within the Cassia Division of the Minidoka National Forest, its status is quite satisfactory at this time. The thorough control operation directed against the 1935 infestation, with the proper maintenance the following season, reduced a serious infestation to a status which has been maintained during the subsequent seasons. As stated, the diligence of local forest officers has contributed materially in protecting the results obtained from control.

In considering the satisfactory condition of the mountain pine beetle infestation which exists within the Cassia Division, one must not disregard the potential danger of such situations. As in this area serious losses have occurred and still more serious damage prevented, it may be properly assumed that a recurrence of such an outbreak is entirely possible if conditions favorable for such a development prevail. The occurrence of such a condition can be prevented by keeping the lodgepole pine under proper observation, and the prompt treatment of all small centers of infestation that may develop in the future.

At the present time there are a few infested trees within the Cassia Division, which should be treated. Perhaps this has already been done as in the past by the ranger personnel. This infestation is not serious, but the treatment of these trees can be considered as further insurance against subsequent timber losses. Infested trees are found in the following compartments:

Compartment	Patch	Acres	Trees
Coal Pit	D	28	12
Trapper	B	40	28
Cottonwood	B	104	86
Lower Rock Creek	A & C	199	57
	5	371	183

Although the data as revealed by the survey are given in this summary, it is believed that the number of infested trees may be a trifle high, for in surveying small patches of timber the sample strip often traverses the most susceptible portions of the area, which gives an inflated result.

NEVADA WORKING CIRCLE
Detailed Estimates
National Forest Timber

Lower Goose Creek Compartment	Patch	Timber Type	No. Acres	
	A ✓	Alpine Fir	11	
	B ✓	Lodgepole	18	
	C	"	57	3
	D	"	31	
	E	"	28	
	F	"	23	
	G	"	18	
	H	"	22	
	I ✓	"	14	
	J ✓	"	29	
	K ✓	"	6	
	L ✓	"	49	
	M ✓	"	54	
	N ✓	"	22	
	O ✓	"	9	
	P ✓	"	17	450
	Q ✓	"	32	
	R ✓	"	12	
		Total Lodgepole	~~430~~ 441	Comm.
		Total Lodgepole	21	Prot.
		" Lodgepole	13	Reprod.
		Total Alpine Fir	11	Comm.
Lower Trout Creek Compartment	H1	Lodgepole	99	
	H2	"	8	
		Total Lodgepole	107	
Beaver Dam Compartment	A	Lodgepole	7	
	B	"	22	
	B	"	6	
	C	"	45	
		Total Lodgepole	~~73~~ 80	
		Reproduction	20	
		Protection	61	

Grand Totals	Lodgepole Reproduction	35
	Lodgepole Commercial	617
	Lodgepole Protection	90
	Alpine Fir Commercial	11

Twin Falls Working Circle
Detailed Estimates, National Forest Timber

	Patch	Timber Type	No. Acres
Goose Creek-Rock Creek Compartment	A	Lodgepole	31
	B	Alpine Fir	3
	C ✓	"	23
	D	Lodgepole	119
	E	"	20
	F	"	24
	G	"	37
	H ✓	"	26
	I	"	155
	J	"	48
	K	"	181
	L	"	9
	M	"	21
	N	"	48
	O ✓	"	10
	P	"	52
	Q	"	23
	R	"	14
	S ✓	"	13
	T	"	24
	U	"	38
	V	"	108
	W ✓	Alpine Fir	98
	X	Lodgepole	40
	Y ✓	Alpine Fir	59
	Z	Lodgepole	16
	Ao	"	9
	Bo	"	22
	Co	Alpine Fir	16
	Do	Lodgepole	32
	Eo	"	41
	Fo	"	14
	Go ✓	Alpine Fir	21
	Ho	Lodgepole	20
	Io ✓	"	4
	Jo ✓	"	16
	Ko	"	50
	Lo	"	14
	Mo ✓	"	6
	No	"	43
	Oo ✓	"	18
	Po	"	13
	Qo ✓	"	4
	Total Lodgepole Pine Commercial Type		1363 A.
	Total Lodgepole Pine Protection Type		19 A.
	Total Alpine Fir Commercial Type		225 A.
	Total Alpine Fir Protection Type		91 A.
Lower Rock Creek Compartment	A	Lodgepole	56
	B	"	4
	C	"	143
	D	"	14
	E	"	15
	F ✓	"	2
	G	"	29
	Total LodgePole Pine		268 Acres

	Patch	Timber Type	No. Acres
McMullen Compartment	A	Lodgepole	6
	B	"	35
Shoshone Compartment	A	Lodgepole	4
	B	"	1
	C	"	16
	D	"	16
	E	"	21
	F	"	21
	G	Alpine Fir	10
	H	Lodgepole	19
	I	"	16
	J	"	38
	K	"	25
	L	"	6
	M	"	38 48
	N	"	21
	O	"	14
	P	"	10
	Q	"	6
	R	"	34
	S	"	62
	T	"	44
	U	"	14
	V	"	23
	W	"	8
	X	"	17
	Y	"	13
	Z	"	31
	Ao	"	43
	Bo	"	20
	Co	"	38
	Do	"	50
	Eo	"	22
	Fo	"	27
	Go	Alpine Fir	74
	Ho	Lodgepole	67
	Io	"	28
	Jo	"	8

Total Lodgepole Type	831 Acres
" Lodgepole Protection	102 Acres
" Alpine Fir Type	84

GRAND TOTAL TWIN FALLS WORKING CIRCLE

Lodgepole Type	Acres	2,503
Lodgepole Protection	"	121
Alpine Fir Type		84

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SURVEYS - Minidoka
General

Burley, Idaho
September 7, 1940

BURLEY - OAKLEY WORKING CIRCLE

	Patch	Timber Type	No. Acres
Harrington Compartment	A	Lodgepole	112
	B	"	20
	C	"	13
Coal Pit Compartment	A	"	45
	B	"	76
	C	"	149
	D	"	28
	E	"	2
	F	"	18
	G	"	11
	H	"	32
	I	"	10
	J	"	76
	K	"	12
	L	"	36
	M	"	24
	N	"	16
	O	"	18
Basin Patch Compartment	A	"	67
	B	"	6
	C	"	16
	D	"	6
	E	"	98
	F	"	16
	G	"	15
	H	"	10
	I	"	6
	J	"	7
	K	"	8
	L	"	10
	M	"	9
	N	"	14
	O	"	12
	P	"	6
	Q	"	8
	R	"	25
	S	"	14
	T	"	6
	U	"	28
	V	"	33

120

	Patch	Timber Type	No. Acres
Sawmill Compartment	A	Lodgepole	18
	B	"	138
	C	"	126
	D	"	56
	E	"	54
	F	"	55
	G	"	14
	H	"	15
	I	"	8
	J	"	5
Ecklund Compartment	A	"	36
	B	"	4
	C	"	129
	D	"	8
	E	"	33
Lst Fork - 2nd Fork Comp.	A	"	19
	B	"	92
	C	"	81
	D	Alpine Fir	75
	E	Lodgepole	18
	F	"	11
	G	"	10
	H	"	31
	I	Alpine Fir	13
	J	Lodgepole	141
	K	"	65
	L	"	8
	M	"	67
	N	"	66
	O	Alpine Fir	4
	P	Lodgepole	3
	Q	"	2
		Total Lodgepole	614
		Total Alpine Fir	92
Lower 3rd Fork Compartment	A	Lodgepole	18
	B	"	46
	C	Alpine Fir	138
	D	Lodgepole	24
	E	"	33
	Ao	"	30
		Total Lodgepole	139
		Total Alpine	138
Upper 3rd Compartment	A	Lodgepole	118
	B	"	111
	C	"	32
	D	"	19
	E	"	19
	F	"	228
	G	"	28
	H	"	5
	I	"	21
	J	"	62

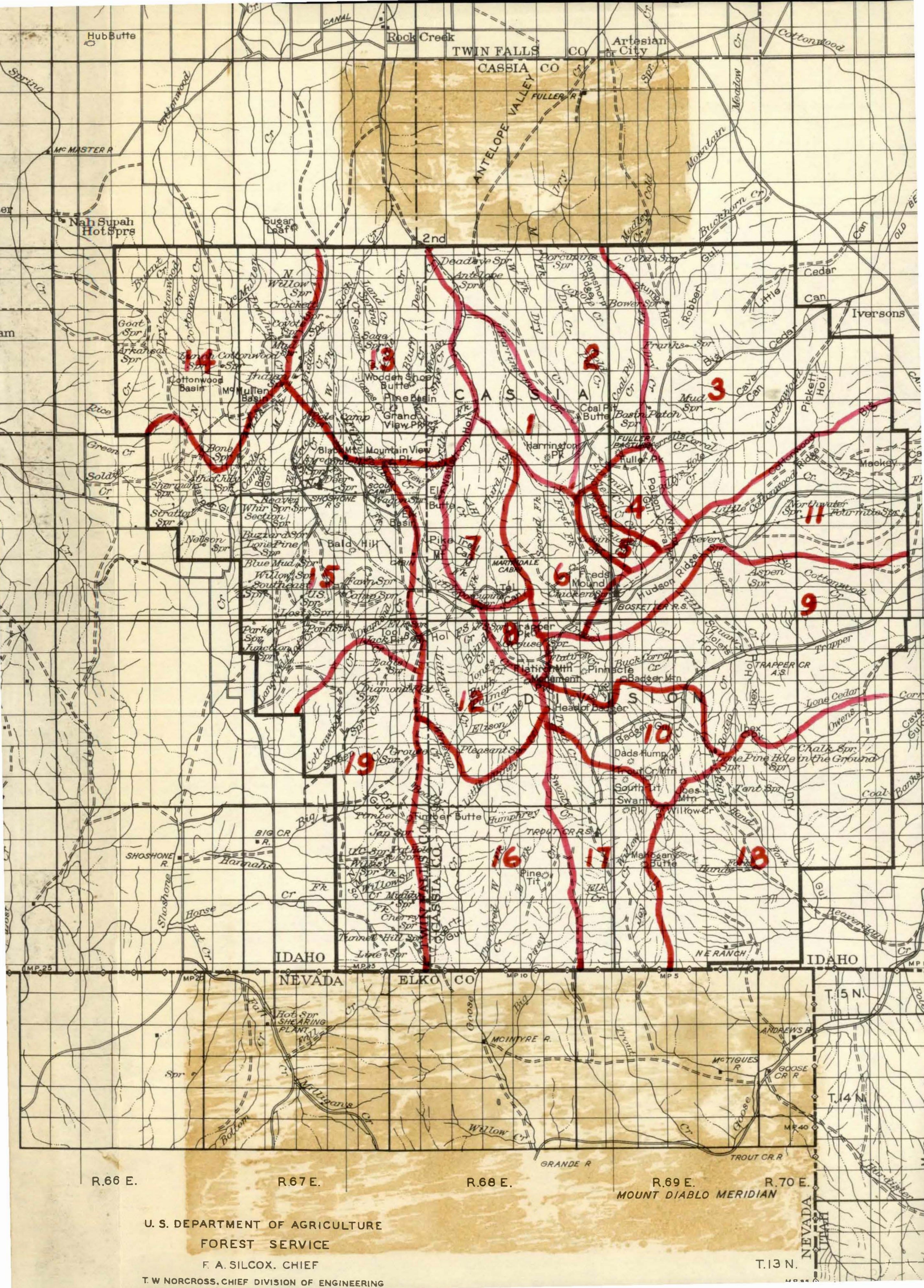
Upper 3rd Fork Compartment	Patch	Timber Type	No. Acres
Continued	K	Lodgepole	29
	L	"	21
	M	"	32
	N	"	6
	O	"	168
	P	"	10
		Total Lodgepole	731
		Total Alpine Fir	168
Trapper Compartment	A	Lodgepole	33
	B	"	40
	C	"	26
	D	"	79
	E	"	80
	E1	"	20
	E2	"	13
	F	Alpine Fir	132
	G	Lodgepole	31
	H	"	28
	J	"	18
	K	Alpine Fir	18
	L	"	19
	M	Lodgepole	36
	N	"	46
	O	"	20
	P	Alpine Fir	24
	Q	Lodgepole	16
	R	"	51
	S	"	118
	Z	"	19
	Ao	"	6
		Total Lodgepole	680
		Total Alpine	193
Badger Gulch-Trout Creek Comp.	A	Lodgepole	23
	B	"	20
	C	Alpine Fir	75
	D	"	29
	E	Lodgepole	49
	F	"	30
	G	"	61
	H	"	44
	I	"	16
	J	Alpine Fir	11
	K	Lodgepole	44
	L	"	61
	M	Alpine Fir	40
	N	Lodgepole	22
	O	"	36
		Total Lodgepole	406
		Total Alpine Fir	155

Cottonwood Compartment

Patch	Timber Type	No. Acres
A	Lodgepole	3
B	"	104
C	"	86
D	Alpine Fir	23
E	Lodgepole	30
F	"	7
G	"	57
H	"	88
I	"	28
J	"	17
K	"	56
L	"	37
M	"	110
N	"	19
O	"	11
P	"	5
Q	"	15
R	"	~~11~~ 4
S	"	11
T	"	3
U	"	8
V	"	31
W	"	10
	Total Lodgepole	725
	Alpine Fir	23

Grand Totals, Burley-Oakley Working Circle

Lodgepole Pine Type Commercial	5,136
Lodgepole Pine Type Reprod.	100
Lodgepole Pine Type Protection	48
Alpine Fir Type Commercial	769


Hub Butte
Rock Creek
CANAL
TWIN FALLS CO
CASSIA CO
Artesian City
Cottonwood
FULLER R
ANTELOPE VALLEY
Mountain Meadow
Spring
Mc MASTER R
Nah Supah Hot Sprs
Sugar Loaf
2nd
Buckhorn Cr
Mud Cr
Cold
Dry
Deadeye Spr
Antelope Spr
Porcupine Spr
Ramshorn Ridge
Coyote Cr
Bower Spr
Stump Hol
Robber Gul
Cedar
Little
Can
Iversons
Franks Spr
Big
Cave Can
Cedar
Pickett Hol
Goat Spr
Dry Cottonwood
Cottonwood Cr
N Willow Spr
Crockett Spr
Coyote Spr
Arkansas Spr
Cottonwood Basin
Mc Mullen Basin
Lynch Cottonwood Spr
India
Wooden Shoe Butte
Pine Basin
Grand View Pk
Sage Spr
Pole Camp
C A S S I A
Coal Pit Butte
Basin Patch Spr
Mud Spr
Cottonwood
Rice
Green Cr
Bone Spr
Black Mt
Mountain View Pk
Harrington Pk
Fuller Pk
FULLER PASTURE
Terrills Corral
Billy's Hole
Cottonwood Ridge
Mackey
Soldier Cr
4th of July Spr
Sherman Spr
Stratton Spr
Beaver
Whir Spr
Section Spr
SHOSHONE R S
Deer Spr
Scout Camp
Elk Butte
Basin
Poison Gul
Corral
Little Cottonwood
Northwater Spr
Fourmile Spr
Nelson Spr
Buzzard Spr
Lone Pine Spr
Bald Hill
Pike Mt
MARTINDALE CABIN
Blue Mud Spr
Willow Spr
Southeast Spr
Fawn Spr
Camp Spr
US Spr
Lost Spr
Freds Mound
Chicken Spr
Hudson Ridge
Severe
Aspen Spr
So. Cottonwood Cr
BOSTETTER R.S.
Parker Spr
Pond Spr
Junction Spr
Diamond Cr
Tool Box
Jack Pit
Trapper Pk
Grouse Spr
Natrona Cr
Flatiron Mtn
Monument
Pinnacle
Buck Corral
Badger Mtn
Squaw Hol
Violets
Trapper
TRAPPER CR A.S.
Langford Flat Cr
Badger Spr
Diamond Flat
Jones Cr
Palmer Cr
Elison Hole Cr
D I V I S I O N
Head of Badger
Ibex Hol
Lone Cedar
Cave Gul
Cottonwood
Green Spr
Grouse Spr
Pleasant Spr
Badger Gul
Dads Hump
Trout Cr Mtn
South Butte
Swan Pk
Joes Mtn
Willow Cr
Rodeo
Ibex Pk
Owens
Chalk Spr
Lone Pine Spr
Hole in the Ground Spr
Tent Spr
Coal Banks
Timber Butte
Humphrey Cr
TROUT CR R.S.
BIG CR R.
SHOSHONE R.
Hannahs
Jap Spr
Pine Tit
Mahogany Butte
Shoshone
Horse
Hot Cr
Cherry Spr
Tunnel Hill Spr
Line Spr
NE RANCH
Beaverdam
IDAHO
NEVADA
ELKO CO
MP 25
MP 20
MP 15
MP 10
MP 5
MP 40
T.15 N.
T.14 N.
T.13 N.
Hot Spr
SHEARING PLANT
MCINTYRE R.
ANDREWS R.
McTIGUES R.
GOOSE CR R
Milligans Cr
Bottom
Willow Cr
Goose Cr
GRANDE R
TROUT CR. R
Birdsoter
R.66 E.
R.67 E.
R.68 E.
R.69 E.
R.70 E.
MOUNT DIABLO MERIDIAN
NEVADA
UTAH
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U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
F. A. SILCOX, CHIEF
T. W NORCROSS, CHIEF DIVISION OF ENGINEERING

COMPARTMENT

1. Harrington
2. Coal Pit
3. Basin
4. Sawmill
5. Eckland
6. 1st Fork and 2nd Fork
7. Lower 3rd Fork
8. Upper 3rd Fork
9. Trapper
10. Badger Creek
11. Cottonwood
12. Goose Creek-Rock Creek
13. Lower Rock Creek
14. McMullen
15. Shoshone
16. Lower Goose Creek
17. Lower Trout Creek
18. Beaver Dam
19. Big Horse Creek

CASSIA DIVISION

MINIDOKA NATIONAL FOREST

IDAHO AND UTAH